WHAT IS CLAIMED:

1.   A method of reducing particulate matter content of diesel engine exhaust, said method comprising:

operating a diesel engine utilizing as the fuel an ethanol/diesel fuel blend; and contacting the exhaust resulting from the combustion of said ethanol/diesel fuel blend with a diesel oxidation catalyst (DOC) for an amount of time sufficient to reduce the particulate matter content by at least 25%, as compared to the particulate matter content of diesel engine exhaust resulting from the combustion of diesel fuel alone.

2.   The method of claim 1, wherein the base diesel fuel of said ethanol/diesel fuel blend comprises a fuel additive, ethanol, and a diesel fuel.

3.   The method of claim 1, wherein said fuel additive comprises an oleic alkanolamide and an alkoxylated oleic acid.

4.   The method of claim 1, wherein the base diesel fuel of said ethanol/diesel fuel blend is present in a concentration of between about 80% and about 98% by volume.

5.   The method of claim 1, wherein the ethanol of said ethanol/diesel fuel blend is present in a concentration of between about 2% and about 20% by volume.

6.   The method of claim 1, wherein the ethanol of said ethanol/diesel fuel blend is fuel grade ethanol, optionally derived from petrochemical or agricultural sources.

7.   The method of claim 1, wherein the ethanol/diesel fuel blend is a clear, homogeneous solution or microemulsion, stabilized by a blend of non-ionic surfactants.

8.   The method of claim 7, wherein the surfactant stabilizer is present in the fuel blend at concentrations of from about 0.1% to 3% by volume of said fuel blend.

9.   The method of claim 1, wherein said DOC comprises a loading of platinum metal on a molecular sieve.

10.   The method of claim 1, wherein the exhaust is contacted with said diesel oxidation catalyst (DOC) for an amount of time sufficient to reduce the particulate matter content by at least 40%, as compared to the particulate matter content of diesel engine exhaust resulting from the combustion of diesel fuel alone.